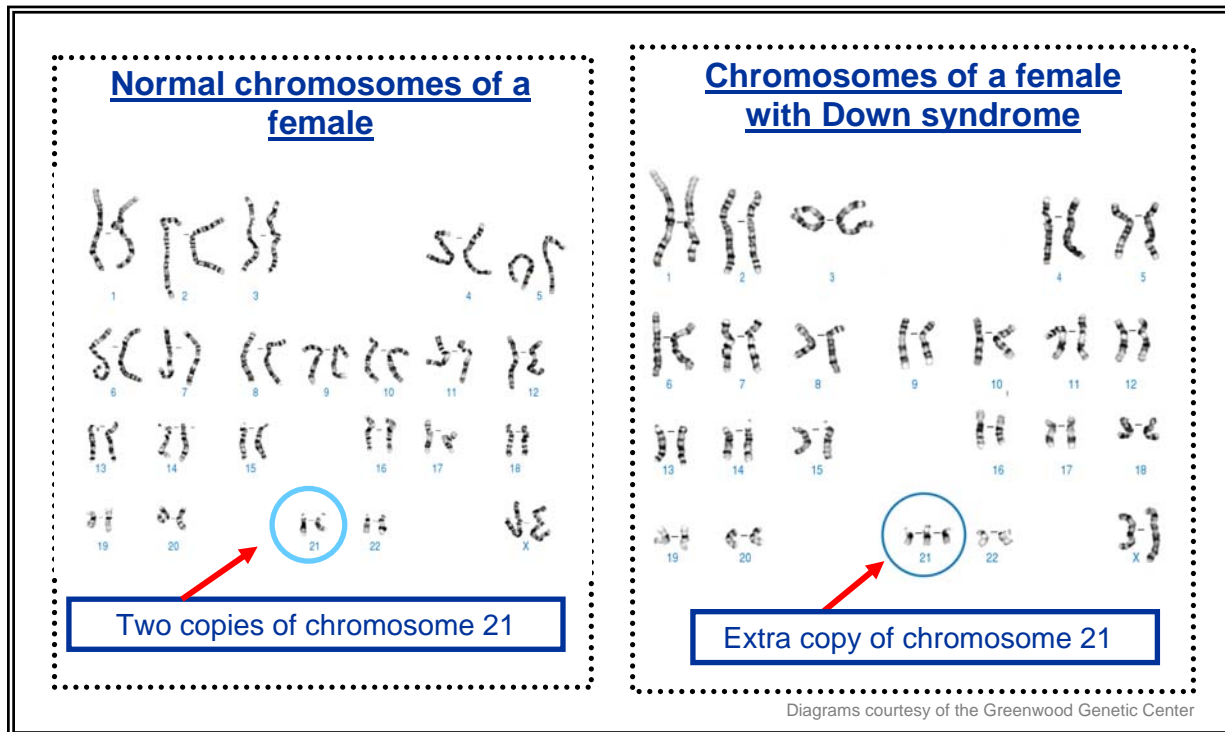


# Down syndrome

## What is Down syndrome?

Down syndrome (also called trisomy 21) is a condition caused by an extra copy of chromosome 21. Normally, we have 23 pairs of chromosomes (for a total of 46); we receive one copy of each chromosome from our mothers, and one copy of each chromosome from our fathers. People with Down syndrome have an extra copy of chromosome 21, for a total of three copies (trisomy means three copies of a chromosome).



Most people with Down syndrome have a similar **facial appearance**, **developmental delay** (failure to meet developmental milestones on time), and some degree of **mental retardation**. The severity of these features varies widely from person to person. Other features of Down syndrome that may be present include **heart defects**, **hearing loss**, **vision problems**, and **intestinal abnormalities**.

Approximately 1 out of every 800 babies born each year have Down syndrome, making it one of the most common genetic birth defects.

## What causes Down syndrome?

The extra chromosome is present due to a random error that occurred before pregnancy during the development of egg or sperm cells. This error in division resulted in an extra copy of chromosome 21 being present in every cell of the baby's body. It is important for families to know that it is not possible to prevent the extra chromosome from being present or cause the extra chromosome to be present. There is no cure for Down syndrome; however, with good medical care, many people with Down syndrome live into adulthood and lead productive lives.

## For more information

KidsHealth.org - [http://www.kidshealth.org/parent/medical/genetic/down\\_syndrome.html](http://www.kidshealth.org/parent/medical/genetic/down_syndrome.html)

The March of Dimes - [http://www.marchofdimes.com/professionals/14332\\_1214.asp](http://www.marchofdimes.com/professionals/14332_1214.asp)

The National Down Syndrome Society - <http://www.ndss.org/>

**Source:** The March of Dimes